

WHAT IS CLAIMED IS:

- 1                   1.     A cage-nut assembly, comprising:  
2                   a nut; and  
3                   a cage structure having the nut therein, the cage structure being  
4 configured to provide high torsional strength to prevent rotation of the nut, the cage  
5 structure further having a flat base and an at least partially open end portion,  
6                   the cage structure including a relatively structurally weak blocking  
7 member preventing the nut from moving laterally along the base through the at least  
8 partially open end portion, the structurally weak blocking member being formed by  
9 one of first and second opposing straps which extend from the flat base to wrap  
10 around opposing ends of the nut, the one of first and second opposing straps  
11 providing high torsional strength and being bendable away from the flat base to  
12 enable removal of the nut from the cage structure.
- 1                   2.     The cage-nut assembly of claim 1, further comprising small  
2 tabs extending away from the base to space the nut away from the base to prevent  
3 paint-welding of the nut to the base, the small tabs being bendable to allow the nut  
4 to seat when torqued down.
- 1                   3.     The cage-nut assembly of claim 1, wherein the nut is Teflon-  
2 coated.
- 1                   4.     The cage-nut assembly of claim 1, wherein the flat base forms  
2 an aperture to receive a bolt.
- 1                   5.     The cage-nut assembly of claim 4, wherein the aperture is  
2 fully enclosed by the base.
- 1                   6.     The cage-nut assembly of claim 1, wherein the nut is oblong,  
2 and first and second opposing straps wrap around opposing ends of the oblong nut.

1                   7.     The cage-nut assembly of claim 6, wherein the oblong nut is  
2     generally diamond-shaped.

1                   8.     A cage-nut assembly, comprising:  
2                   a nut; and  
3                   a cage structure having the nut therein, the cage structure being  
4     configured to provide high torsional strength to prevent rotation of the nut, the cage  
5     structure further having a flat base and an at least partially open end portion, the flat  
6     base including opposing straps extending therefrom to wrap around opposing ends  
7     of the nut,  
8                   the cage structure including a blocking member adjacent the at least  
9     partially open end portion preventing the nut from moving laterally along the base  
10    through the at least partially open end portion, the blocking member being relatively  
11    structurally weak in a direction orthogonal to a torsional rotation direction of the  
12    nut,  
13                  the blocking member being bendable in the orthogonal direction when  
14    less than approximately 20 lb. of force is applied to the blocking member to open  
15    the end portion and allow the nut to move laterally along the base through the end  
16    portion for removal of the nut.

1                   9.     The cage-nut assembly of claim 8, wherein the blocking  
2     member is formed by one of the opposing straps, the one of the opposing straps  
3     providing high torsional strength and being bendable away from the flat base to  
4     enable removal of the oblong nut from the cage structure.

1                   10.    The cage-nut assembly of claim 8, further comprising small  
2     tabs extending away from the base to space the nut away from the base to prevent  
3     paint-welding of the nut to the base, the small tabs being bendable to allow the nut  
4     to seat when torqued down.

1                   11.    The cage-nut assembly of claim 8, wherein the nut is Teflon-  
2     coated.

1                   12.     The cage-nut assembly of claim 8, wherein the flat base forms  
2     an aperture to receive a bolt.

1                   13.     The cage-nut assembly of claim 12, wherein the aperture is  
2     fully enclosed by the base.

1                   14.     The cage-nut assembly of claim 8, wherein the nut is oblong,  
2     and first and second opposing straps wrap around opposing ends of the oblong nut.

1                   15.     The cage-nut assembly of claim 14, wherein the oblong nut  
2     is generally diamond-shaped.

1                   16.     A cage-nut assembly, comprising:  
2                   a nut; and  
3                   a cage structure having the nut therein, the cage structure being  
4     configured to provide high torsional strength to prevent rotation of the nut, the cage  
5     structure further having a flat base and an at least partially open end portion,  
6                   the cage structure including a relatively structurally weak blocking  
7     member preventing the nut from moving laterally along the base through the at least  
8     partially open end portion, the structurally weak blocking member being bendable  
9     to open the end portion and allow the nut to move laterally along the base through  
10    the end portion for removal of the nut,  
11                  the flat base including a bolt-receiving aperture which is formed  
12    coextensively with the at least partially open end, the blocking member including  
13    at least one curved tang formed coplanar with the flat base.

1                   17.     The cage-nut assembly of claim 16, wherein the nut includes  
2     a protruding tubular portion which extends through the bolt-receiving aperture.

1                   18.     The cage-nut assembly of claim 16, wherein the nut is Teflon-  
2     coated.

1                    19.    The cage-nut assembly of claim 16, wherein the flat base is  
2 supported by standoff legs, the legs including bendable retainer tabs configured to  
3 hold the nut in position, the bendable retainer tabs being bendable to allow  
4 movement of the nut away from the flat base in a perpendicular direction with  
5 respect to the flat base.

1                    20.    The cage-nut assembly of claim 19, wherein the standoff legs  
2 include small projections to facilitate projection welding.